



Attachment J-1
Performance Work Statement (PWS)
For
Enterprise Applications Service
Technologies (EAST)

ATTACHMENT J-1

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1 ENTERPRISE APPLICATIONS SERVICE TECHNOLOGIES (EAST)**1.1 MISSION STATEMENT**

The mission of the National Aeronautics and Space Administration (NASA) is to pioneer the future in space exploration, scientific discovery and aeronautics research. The Office of the Chief Information Officer (OCIO), in support of NASA's mission, seeks the achievement of management and institutional excellence comparable to the Agency's technical excellence.. In an effort to meet this goal, the NASA OCIO has defined an Information Technology (IT) strategy focused on better enabling NASA's mission by integrating people, processes, technology, and information. As part of that strategy, NASA is aligning IT functions and processes to create efficiencies and cost savings through consolidated support services. This new model is called "NASA's IT Infrastructure Integration Program" or I³P. For details on the I³P concept and vision, refer to Attachment **J-1**, Appendix **A**, *Cross Functional Requirements, Section 1*.

The primary purpose of the EAST contract is to provide the services necessary to operate the NASA Enterprise Applications Competency Center (NEACC), located at the Marshall Space Flight Center in Huntsville, Alabama. The NEACC provides services to operate, maintain, and enhance key Business and Mission-Supporting platforms, applications and infrastructure used across the Agency. In addition, the NEACC provides support for the extended Enterprise Applications stakeholder and end-user communities. As NASA focuses its attention on the successful accomplishment of its core mission objectives, it is imperative that all Enterprise Applications operate reliably and effectively. In addition, it is important that Enterprise Applications Services—as supporting functions—are offered at the best possible value, allowing more NASA funds to be directed toward NASA's core mission.

1.2 GENERAL DESCRIPTION OF WORK REQUIREMENTS

The Contractor shall provide comprehensive services for Enterprise Applications operations, maintenance, enhancement and end-user support. To accomplish this core mission, the Contractor shall apply a systematic, highly reliable and proven approach—based on ITIL version 3.0—to Enterprise Applications operations and support, thereby transitioning the NEACC to a streamlined, highly efficient "factory" model that satisfies customer demand while optimizing price performance. This PWS describes the NEACC core mission "factory" under PWS Sections 2.0, 3.0, and 5.0. The term "factory" is used to describe an environment that leverages fixed resources utilizing reliable, repeatable processes, best-practice competencies and techniques to manage an application portfolio in a highly efficient and high quality manner.

Given the fixed price constraints of the EAST contract, the GOVERNMENT has established a mechanism to quantify work in the NEACC factory within lower and upper limits. This mechanism is based on the concept of Application Points. Application Points provide a method for representing the complexity of a service request and for measuring the realized business value that results from the work performed to complete the request. Application Points are used

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in the EAST contract to provide an objective method for quantifying the volume of work accomplished by the EAST contractor within the PWS 3.1 and PWS 3.2 service areas.

The GOVERNMENT has provided a set of guidelines and definitions, defined in Attachment **J-6**, *Application Point Requirements*, which establish a method for converting any service request entering the NEACC factory into Application Points. For work performed as part of PWS 3.1 Applications Maintenance, the GOVERNMENT has established an annual range that defines the lower limit and upper limit of Application Points that shall be completed by the EAST Contractor. For work performed as part of PWS 3.2 Applications Enhancement, the GOVERNMENT has established a monthly range that defines the lower limit and upper limit of Application Points that shall be completed by the EAST Contractor. The lower and upper limits for both PWS 3.1 and PWS 3.2 are defined in Attachment **J-6**, *Application Point Requirements*.

PWS Section 4.0 describes Indefinite Delivery/Indefinite Quantity (ID/IQ) Task Orders that NASA will issue on an as-needed basis for Applications Implementation services involving large application enhancement efforts that fall outside the defined scope of PWS Section 3.0. Examples of ID/IQ Task Order work include major application enhancements, the development of new Enterprise Applications, and the transitioning of existing Agency applications into the NEACC. These implementation services are to be accomplished using the same PWS 5.0 Delivery Functions, processes, and requirements that support the NEACC factory, but will be acquired by means of ID/IQ task orders based on demand.

PWS Section 5.0 describes a set of Delivery Functions that represent skills, processes, and supporting activities that are leveraged to fulfill the requirements specified in this PWS. These Delivery Functions are required to support both the NEACC factory requirements, as well as ID/IQ Task Order work.

The Lines of Business supported by the NEACC include business processes grouped by functional area and significant general-use application platforms. The Contractor shall perform all requirements outlined in this PWS across all Lines of Business as described in Attachment **J-21**, *Resource Baseline* and identified below:

- Financial
- Logistics
- Procurement
- Human Capital and Workforce
- Identity, Credential and Access Management (ICAM)
- Product Lifecycle Management (PLM)
- Transitional NASA Data Center (NDC) Services
- Internal Portal and Collaboration
- Enterprise Service Bus (ESB)
- Business Intelligence (BI)
- NASA Enterprise Applications Competency Center (NEACC) Support Systems

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1.3 GOVERNMENT RETAINED AUTHORITIES

The GOVERNMENT will retain a set of key authorities and roles related to I³P services. Attachment **J-1**, Appendix **A**, *Cross Functional Requirements, Section 2* describes the roles and responsibilities retained by the Agency OCIO organization. The roles and responsibilities described below are NEACC-specific retained authorities that encompass the overall service delivery functions related to Enterprise Applications and supporting services.

1.3.1 NEACC Management

The GOVERNMENT will retain authority for the overall NEACC Business and Operations Strategy, to include working with the Agency Business Systems Portfolio Manager and NASA Governance Boards, designing the overall strategy for the NEACC operations model, managing Service Level Agreements between the NEACC and its stakeholders, overseeing strategic Business Readiness activities, monitoring and managing the NEACC's performance and cost positions, and developing and implementing processes to continually address NASA's evolving Enterprise Applications requirements and the needs of all NEACC stakeholders.

1.3.2 NEACC Demand Management

The GOVERNMENT will retain authority for the overall Demand Management functions associated with the NEACC. Demand Management functions include oversight of all aspects of the Enterprise Applications Governance process, scheduling and facilitating Functional Control Board and Release Review Board sessions, assisting NEACC stakeholders with the prioritization and approval of incoming requests, and collaborating closely with the EAST Contractor to ensure that available NEACC factory capacity is effectively utilized to address demand based on business priorities.

1.3.3 Business Process Support

The GOVERNMENT will retain authority for all Business Process Support functions across all Lines of Business. These functions include Business Process design, Business Process integration and optimization, concept development, implementation of NASA policy and regulatory decisions, customer relationship management with Agency stakeholders, process ownership, Internal Controls & Audit, acceptance testing, and expert application monitoring and configuration in accordance with **J-17**, NEACC Process Guidelines.

1.3.4 Enterprise Applications Strategy and Planning

The GOVERNMENT will retain authority for the Enterprise Applications Strategy and Planning functions across all Lines of Business. These functions include: approving technology and

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application roadmaps that address NASA's short and long-term Enterprise Applications needs; providing input and direction for Business Case Analyses in support of new Enterprise Applications service initiatives; managing the relationship with external service providers; establishing a point of view on technology optimization strategies; evaluating service initiatives within the broader Enterprise Architecture context; and providing an Enterprise perspective on Information Technology as it relates to NASA's Enterprise Applications Portfolios.

2 PROGRAM MANAGEMENT

Program Management consists of the key areas defined below that ensure all aspects of the EAST contract are managed efficiently and according to regulatory requirements, and that the specific needs of the GOVERNMENT with relationship to the EAST effort are continuously met. Program Management functions also establish the basis for a positive and collaborative working relationship between the GOVERNMENT and the Contractor. The Contractor shall provide Program Management as described in the following PWS elements.

2.1 CONTRACT MANAGEMENT

Contract Management, as defined for this PWS, encompasses the functions of contract administration as well as those of customer relationship management. Contract administration is aimed at managing the terms and conditions of the contract. Customer relationship management focuses on establishing a collaborative and mutually beneficial relationship between the GOVERNMENT and the Contractor.

No.	GOVERNMENT Requirements
	<i>Contract Management Requirements</i>
2.1.1	In performance of contract administration functions, the contractor shall provide a local, single point of contact with contractual obligation authority for all contract administration functions and activities required in performance of this contract. This point of contact shall have access to all contract administration data and information related to performance of this contract.
2.1.2	The Contractor shall provide customer relationship management functions (where in this case the customer is NEACC Management) that include: collaborating with the GOVERNMENT to develop a strategy for achieving the objectives as stated in PWS Section 1.2; understanding success criteria for meeting the stated objectives; and establishing a positive, productive working relationship between the GOVERNMENT and the Contractor. The primary goal of the customer relationship management function is to facilitate the achievement of successful outcomes that are of mutual benefit to the GOVERNMENT and the Contractor.
2.1.3	The Contractor shall prepare and deliver an Option Decision Package in accordance with DRD 1293CD-001, <i>Option Decision Package</i> .

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2.2 FINANCIAL MANAGEMENT

Financial Management consists of all business and financial functions required to meet the GOVERNMENT's reporting requirements.

No.	GOVERNMENT Requirements
	<i>Financial Management Requirements</i>
2.2.1	The Contractor shall provide price, financial and resource data that shall be tracked, accumulated and reported in accordance with DRD 1293MA-006 - <i>EAST Documentation/Reports Matrix - Price Report</i> .
2.2.2	The Contractor shall provide Monthly Task Order Progress Reports in accordance with DRD 1293MA-006, <i>EAST Documentation/Reports Matrix - Monthly Task Order Progress Report</i> .
2.2.3	The Contractor shall uniquely identify each Capital Asset acquired by its unique WBS on the invoice submittal in accordance with NASA Policy Directive (NPD) 9250.1, <i>Identifying Capital Assets and Accumulation of Cost</i> , dated December 30, 2008 or any superseding NASA requirements.

2.3 PROCUREMENT MANAGEMENT

Procurement Management consists of the acquisition activities required to perform the services and functions specified in the PWS and to accomplish the EAST mission.

No.	GOVERNMENT Requirements
	<i>Procurement Management Requirements</i>
2.3.1	The Contractor shall be responsible for the acquisition of resources to accomplish the EAST mission, which shall be deliverable under this contract with title vested to the GOVERNMENT. These resources shall include, but are not limited to, hardware, software, services, maintenance and licensing.
2.3.2	The Contractor shall provide software license maintenance and software license renewals for all licenses identified in Attachment J-19 , <i>Inventory of Hardware and Software Agreements</i> .
2.3.3	The Contractor shall track and make available to the GOVERNMENT the status of all individual procurements from purchase request through final purchase order, delivery, and acceptance.
2.3.4	The Contractor shall provide all supplies, materials, and services (not otherwise furnished by the GOVERNMENT) required for performing the services and

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No.	GOVERNMENT Requirements
	<i>Procurement Management Requirements</i>
	functions specified in the PWS to accomplish the EAST mission.
2.3.5	The Contractor shall implement and maintain procurement controls including contractor policies and procedures governing standards of conduct, procurement processes and practices, and prevention of waste, fraud, and mismanagement.

2.4 PROGRAM SUPPORT

Program Support encompasses activities associated with external and internal NEACC reporting and other program requirements.

No.	GOVERNMENT Requirements
	<i>Program Support Requirements</i>
2.4.1	The Contractor shall prepare and conduct monthly EAST management reviews in accordance with DRD 1293MA-004 - <i>Monthly Progress Report</i> .
2.4.2	The Contractor shall track official communications with the Contracting Officer's Technical Representative (COTR) such as requests for information, and transmittals, and provide status concerning all such communications.
2.4.3	The Contractor shall adhere to all requirements defined in Attachment <u>J-4</u> , <i>Service Level Standards</i> .
2.4.4	The Contractor shall provide a Risk Management Plan, Analysis, and Tracking Reports in accordance with DRD 1293MA-001 - <i>Risk Management Plan</i> .
2.4.5	The Contractor shall establish Technology Roadmaps as described in the DRD 1293MA-006 - <i>EAST Documentation/Reports Matrix - Technology Roadmap</i> .
2.4.6	The Contractor shall prepare and deliver Badged Employee and Remote IT User Listings in accordance with DRD 1293MA-002 – <i>Badged Employee and Remote IT User Listing</i> .
2.4.7	The Contractor shall prepare and deliver Contractor Employee Clearance Documents in accordance with DRD 1293MA-003 – <i>Contractor Employee Clearance Document</i> .
2.4.8	The Contractor shall prepare and deliver Position Risk Designation for Non-NASA Employee in accordance with DRD 1293MA-005 – <i>Position Risk Designation for Non-NASA Employee</i> .
2.4.9	The Contractor shall prepare and submit an Organizational Conflict of Interest (OCI) Mitigation Plan in accordance with DRD 1293MA-008 - <i>OCI Mitigation</i>

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No.	GOVERNMENT Requirements
	<i>Program Support Requirements</i>
	<i>Plan.</i>

2.5 SECURITY MANAGEMENT

No.	GOVERNMENT Requirements
	<i>Security Management Requirements</i>
2.5.1	The Contractor shall adhere to the requirements identified in Attachment J-1 , Appendix A , <i>Cross Functional Requirements, Section 6</i> .

2.6 SAFETY, HEALTH AND ENVIRONMENTAL (SHE) REQUIREMENTS

Safety, Health and Environmental (SHE) Requirements ensure that all applicable regulations are followed and that safety is promoted throughout all activities associated with the EAST mission.

No.	GOVERNMENT Requirements
	<i>Safety, Health, and Environmental (SHE) Requirements</i>
2.6.1	<p>The contractor shall provide, implement, and maintain a comprehensive Safety, Health and Environmental (SHE) Plan, in accordance with DRD 1293SA-001 - <i>Safety, Health, and Environmental (SHE) Plan</i> and NFS 1852.223-70, and establish and implement an industrial safety, occupational health, and environmental program that (1) prevents employee fatalities, (2) reduces the number of SHE incidents, (3) reduces the severity of employee injuries and illnesses, and (4) protects property, equipment, and the environment through the ongoing planning, implementation, integration, and management control of these programs. The SHE Plan shall address each of the following Agency SHE core program requirements in detail that are applicable to the contracted effort:</p> <ul style="list-style-type: none"> a. Management leadership and employee involvement b. System and worksite analysis c. Hazard prevention and control d. Safety, health, and environmental training e. Environment compliance
2.6.2	The contractor shall report mishaps and safety statistics to MSFC's Safety and Mission Assurance Directorate/Office in accordance with DRD 1293SA-002 -

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No.	GOVERNMENT Requirements
	<i>Safety, Health, and Environmental (SHE) Requirements</i>
	<i>Mishap and Safety Statistics Reports.</i> The contractor shall submit these reports directly to the NASA Incident Reporting Information System (IRIS) or shall use the forms listed in section 15.4 of DRD 1293SA-002, to report mishaps and related information required to produce the safety metrics.

3 APPLICATIONS OPERATIONS

The Contractor shall provide Applications Operations as described in the following PWS elements. The Contractor shall track all Applications Operations work within PWS 3.0 in accordance with Attachment **J-6**, *Application Point Requirements*.

3.1 APPLICATIONS MAINTENANCE

Applications Maintenance describes the core set of operational tasks and service request types that must be performed to sustain the operational system and support capabilities offered by the NEACC factory:

Applications Maintenance Service Request Types

- Discrepancy/Break-Fix—request to investigate and correct an incident associated with previously working functionality, where the resolution does not result in a change to any configurable item.
- Master Data—request for a master data record to be added or updated in an Enterprise System (e.g. adding a vendor record to SAP) .
- Job Request—request to initiate batch or manually processed jobs to provide specified data output or business process functionality.
- Change Request/Discrepancy—request to investigate and correct an incident associated with previously working or documented functionality, where the resolution results in one or more changes to a configurable item.

Operational Support Tasks

- All tasks not related to one of the above service request types that are required to keep systems, applications, and platforms operational, to provide for continuity of business processes, and to support NEACC end-users.

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No.	GOVERNMENT Requirements
	<i>Applications Maintenance Requirements</i>
3.1.1	The Contractor shall adhere to the GOVERNMENT's processes as described in the Attachment <u>J-1</u> , Appendix <u>A</u> , <i>Cross Functional Requirements</i> for all Applications Maintenance activities.
3.1.2	The Contractor shall provide comprehensive functional, technical, and application-specific knowledge required to complete all Applications Maintenance service requests in all applications identified in Attachment <u>J-21</u> , <i>Resource Baseline</i> in accordance with Attachment <u>J-4</u> , <i>Service Level Standards</i> . Applications Maintenance services shall include, but are not limited to: triage of incoming Service Requests, functional and technical assessments of requirements, application updates, testing, supporting documentation, user aids and training, and deployment planning and execution.
3.1.3	The Contractor shall complete all Applications Maintenance service requests in accordance with Attachment <u>J-17</u> , <i>NEACC Process Guidelines</i> .
3.1.4	The Contractor shall track the quantity of Application Points completed for all PWS Section 3.1 Applications Maintenance service requests in accordance with DRD 1293MA-007 - <i>Application Point Capacity Management Plan</i> .
3.1.5	The Contractor shall perform all operational support tasks required to keep systems, applications, and platforms operational, to provide for continuity of business processes, and to support NEACC end-users (such as end-user support, Business Warehouse data loads, system refreshes, Business Continuous Volume (BCV) splits, application availability monitoring, recurring meetings and telecons as identified in Attachment <u>J-20</u> , <i>End-user Forums</i>) and track all Application Points associated with these tasks in accordance with Attachment <u>J-6</u> , <i>Application Point Requirements</i> .
3.1.6	The Contractor shall complete all Discrepancy Break/Fix requests across all Lines of Business according to the service levels defined in Attachment <u>J-4</u> , <i>Service Level Standards</i> . (such as data issue, documentation, online entry, reports, security authorization, system performance, training, and workflow)
3.1.7	The Contractor shall complete all Master Data requests across all Lines of Business according to the service levels defined in Attachment <u>J-4</u> , <i>Service Level Standards</i> . (Such as cost center, fund center, vendor, custodian, Federal Acquisition Regulations (FAR)/NASA FAR Supplement (NFS) updates, purchasing group, and release strategy).
3.1.8	The Contractor shall complete all Job Requests across all Lines of Business according to the service levels defined in Attachment <u>J-4</u> , <i>Service Level Standards</i> . (Such as execute batch job request, execute scripts to correct data issue, execute reports or jobs to collect and prepare data in support of audit requests, Enterprise Performance Support System (EPSS) documentation

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No.	GOVERNMENT Requirements
	<i>Applications Maintenance Requirements</i>
	updates, perform master data updates (such as FAR/NFS updates) and internal tracking of hardware and software patching).
3.1.9	The Contractor shall complete all Change Request / Discrepancy requests in accordance with Attachment <u>J-4</u> , <i>Service Level Standards</i> and in accordance with Attachment <u>J-17</u> , <i>NEACC Process Guidelines</i> . (Such as system functions, center re-organization, database administrator, documentation, printer management, hardware and software maintenance, security authorization, system performance and workflow).
3.1.10	The Contractor shall prioritize and escalate service requests based on definitions of severity levels as defined in Attachment <u>J-4</u> , <i>Service Level Standards</i> .
3.1.11	The Contractor shall document all deliverables, services, processes and procedures associated with Applications Maintenance activities as identified in Attachment <u>J-1</u> , Appendix <u>A</u> , <i>Cross Functional Requirements</i> .
3.1.12	The Contractor shall publish and maintain all PWS 3.0 course materials for NEACC applications across all Lines of Business in the NASA approved training system.
3.1.13	The Contractor shall perform triage and assessments on all incidents and proposed enhancement service requests in accordance with Attachment <u>J-17</u> , <i>NEACC Process Guidelines</i> , to include the assignment of Application Points.
3.1.14	The Contractor shall, at the GOVERNMENT's direction, reassess any maintenance or enhancement service request that the GOVERNMENT deems to have been assigned to an incorrect Complexity Factor category, and shall adjust the Complexity Factor and associated Application Points accordingly if the GOVERNMENT determines the assignment to be incorrect.
3.1.15	The Contractor shall, at the GOVERNMENT's request, explain the rationale for the assignment of a specific Complexity Factor to a maintenance or enhancement service request.
3.1.16	The Contractor shall ensure that all work performed as part of 3.1 is coordinated with work performed in PWS Section 3.2 to prevent conflicts in configurable items, release builds, or other areas of potential overlap.
3.1.17	The Contractor shall ensure that resources assigned to the ICAM line of business possess, and retain, certification required by the COTS provider.
3.1.18	The Contractor shall administer all NEACC content for the NASA training system.

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3.2 APPLICATIONS ENHANCEMENT

Applications Enhancement comprises a service type that is defined based on performance within a band. The PWS 3.2 band defines a range, consisting of a lower limit and upper limit of Applications Enhancement Application Points that the Contractor shall complete in a month in accordance with Attachment **J-6**, *Application Point Requirements*.

Applications Enhancement Service Requests include the following three types:

- Applications Enhancement Change Request—GOVERNMENT approved improvements to NEACC systems, applications, or platforms that result in changes to configurable items.
- Investigation Request—Feasibility study and/or technical assessment for an improvement that may result in an Applications Enhancement Change Request.
- Improvement Request—Deliverable related to an improvement that does not result in a change to a configurable item, and that benefits multiple, or all, NEACC Lines of Business.

No.	GOVERNMENT Requirements
	<i>Applications Enhancement Requirements</i>
3.2.1	The Contractor shall adhere to the GOVERNMENT's processes as described in the Attachment J-1 , Appendix A , <i>Cross Functional Requirements</i> for all Applications Enhancement activities.
3.2.2	The Contractor shall provide comprehensive functional, technical, and application-specific knowledge required to complete all Applications Enhancement service requests according to defined service level standards. Applications Enhancement services shall include, but are not limited to: application updates, testing, supporting documentation, user aids and training, and deployment planning and execution.
3.2.3	The Contractor shall complete all Applications Enhancement service requests in accordance with Attachment J-17 , <i>NEACC Process Guidelines</i> .
3.2.4	The Contractor shall complete a number of Application Points each month that is consistent with the 3.2 lower and upper band limit in accordance with Attachment J-6 , <i>Application Point Requirements</i> .
3.2.5	The Contractor shall participate in planning sessions required to determine, in collaboration with GOVERNMENT, a due date for each service request as it is approved for work to commence.
3.2.6	The Contractor shall track the progress of each service request and ensure that all work is completed in time to meet the scheduled due date. The Contractor shall notify NEACC Demand Management within 2 business days in the event

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No.	GOVERNMENT Requirements
	<i>Applications Enhancement Requirements</i>
	that a due date cannot be met and shall collaborate with NEACC Demand Management to determine a new due date or an alternative course of action.
3.2.7	The Contractor shall place in an inactive status any service request that is awaiting input or action from a source other than the Contractor.
3.2.8	The Contractor shall work collaboratively with the GOVERNMENT on the Demand Management backlog to ensure that the required number of Application Points is completed each month in accordance with Attachment <u>J-6</u> , <i>Application Point Requirements</i> . The Contractor shall notify NEACC Demand Management whenever there is available capacity, so that NEACC Demand Management can assign additional Application Enhancement Service Requests to be processed.
3.2.9	The Contractor shall track and make visible burn down rates of Application Points in process (i.e. partial completion status of requests in process) and shall provide methods for demonstrating completed Application Points and for determining when available capacity exists to begin new work in accordance with DRD 1293MA-007 - <i>Application Point Capacity Management Plan</i> .
3.2.10	The Contractor shall track and make visible to the GOVERNMENT any changes in Application Point assignments that may occur after an Application Enhancement Service Request is in process in accordance with DRD 1293MA-007 - <i>Application Point Capacity Management Plan</i> .
3.2.11	The Contractor shall not exceed the monthly Application Point upper limit without prior approval by NEACC Demand Management with subsequent written authorization from the Contracting Officer.
3.2.12	The Contractor shall provide the GOVERNMENT with a Reduced Resource Credit (RRC) in accordance with Clause <u>B.6</u> when the number of completed Application Points falls below the monthly Application Point lower limit.
3.2.13	The Contractor shall accommodate the GOVERNMENT's temporary increased capacity requirements which are over the monthly Application Point upper limit. The Contractor shall calculate an Additional Resource Charge (ARC) to the GOVERNMENT for each Application Point that exceeds the upper limit in accordance with Clause <u>B.6</u> .
3.2.14	In the event that GOVERNMENT does not accept a service request or Application Points specified as complete by the Contractor, the Contractor shall reschedule and complete the service request in accordance with Attachment <u>J-4</u> , <i>Service Level Standards</i> .
3.2.15	The Contractor shall perform all Applications Enhancement service requests in the most timely manner possible while adhering to industry-wide quality standards and reducing the risk of defects or missed requirements. These

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No.	GOVERNMENT Requirements
	<i>Applications Enhancement Requirements</i>
	methods shall include iterative processes that enable frequent feedback from functional owners to validate requirements, thorough and iterative testing practices, and reliable coding standards.

4 ID/IQ APPLICATIONS IMPLEMENTATION TASK ORDERS

Indefinite Delivery/Indefinite Quantity (ID/IQ) Task Orders will be used to acquire new application development or implementation services and support components that fall outside the scope of the Resource Baseline, and may be used to acquire significant upgrades to existing applications as approved by the Contracting Officer. These implementation services are to be accomplished using the same Delivery Functions described in PWS Section 5.0.

No.	GOVERNMENT Requirements
	<i>ID/IQ Application Implementation Task Orders Requirements</i>
4.1	The Contractor shall prepare a firm-fixed price for a GOVERNMENT requested Task Order, in accordance with NFS 1852.216-80 <i>Task Ordering Procedure, Alternate I</i> in Clause H.24 and <i>Supplemental Task Ordering Procedures for EAST</i> in Clause H.25 . All Task Orders shall be priced using the pre-established labor rates in Attachment J-5, Pricing Tables .
4.2	The Contractor shall adhere to NASA Procedural Requirement (NPR) 7120.7, <i>NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements</i> .

5 DELIVERY FUNCTIONS

Delivery Functions represent skills, processes, and supporting activities that are required to perform the daily function of the NEACC factory and that ensure the NEACC factory is operating at the required performance and quality levels. These same Delivery Functions also apply to the delivery of ID/IQ Applications Implementation Task Orders. The Contractor shall perform all Delivery Functions as identified in PWS Section 5.0 as required to execute activities in PWS Sections 3.0 and 4.0. The Contractor shall provide Delivery Functions as described in the following PWS elements.

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5.1 FACTORY MANAGEMENT

No.	GOVERNMENT Requirements
	<i>Factory Management Requirements</i>
5.1.1	<i>Service Level Management Requirements</i> <i>The goal of Service Level Management (SLM) is to ensure that all contract Service Level Standards are met and that performance against Service Level Standards is continuously tracked and monitored.</i>
5.1.1.1	The Contractor shall adhere to the GOVERNMENT's SLM Processes as described in Attachment J-1 , Appendix A , <i>Cross Functional Requirements</i> for all Applications Operations and Implementation activities.
5.1.1.2	The Contractor shall collect and report on all Service Level Standards and performance metrics in accordance with DRD 1293MA-006 - <i>EAST Documentation/Reports Matrix - Service Level Metrics Report</i> .
5.1.1.3	The Contractor shall review requests assigned by the Tier 1 Service Desk to validate that Severity Levels have been assigned in accordance with Attachment J-4 , <i>Service Level Standards</i> and to coordinate resolution activities based on the request's Severity Level.
5.1.1.4	The Contractor shall perform service level communications with the Tier 1 Service Desk in coordination with NEACC management.
5.1.2	<i>Application Point Capacity Management Requirements</i> <i>Application Point Capacity Management as defined in this document refers to the requirement to track the availability of all resources within the NEACC factory and to forecast and plan Applications Maintenance Service Requests and Applications Enhancement service request completions activities. This includes reporting of the burn down and completion of Application Points across PWS 3.0.</i>
5.1.2.1	The Contractor shall implement and maintain an Application Point Capacity Management plan according to DRD 1293MA-007 - <i>Application Point Capacity Management Plan</i> , that facilitates the effective operation of the NEACC factory as described under PWS Section 3.0.
5.1.2.2	The Contractor shall coordinate with NEACC Demand Management on an on-going basis to accurately project the capacity available for upcoming releases.
5.1.3	<i>Release Management Requirements</i> <i>The Release Management strategy sets forth the process for planning, packaging, staging, and deploying all software updates to meet incoming customer demand while managing the risks associated with change.</i>

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No.	GOVERNMENT Requirements
	<i>Factory Management Requirements</i>
5.1.3.1	The Contractor shall adhere to the GOVERNMENT's Release Management requirements as described in Attachment J-1 , Appendix A , <i>Cross Functional Requirements</i> .
5.1.3.2	The Contractor's Release Management plan shall adhere to the parameters of the NEACC Enterprise Release Management (ERM) process. The NEACC ERM is available on the I ³ P EAST Acquisition website at http://ec.msfc.nasa.gov/apt/portal_acqDetails.php?acqNum=2 .
5.1.3.3	The Contractor's Release Management process shall, at a minimum, continue the use of Development, Testing and/or Staging, and Production environments as the Promote-to-Production landscape for all platforms and applications. The Contractor shall present for approval any changes to the three-tiered landscape approach to NEACC Enterprise Applications Strategy and Planning Management team.
5.1.3.4	The Contractor shall plan the implementation of releases or other maintenance activity, to include the cutover plan and timing of the deployment of each release or maintenance activity into Production.
5.1.3.5	The Contractor shall execute all steps required to stage, confirm, and deploy the Release in Production environments.
5.1.3.6	The Contractor shall provide input to the definition, preparation, and planning of GOVERNMENT Release Review Boards (RRBs). The Contractor shall plan Release content based on the priorities established by GOVERNMENT RRBs.
5.1.3.7	The Contractor shall maintain an Integrated Release Landscape View, incorporating all platforms and applications for each Line of Business that provides a complete view of the Release across the NEACC landscape as described in DRD 1293MA-006 - <i>EAST Documentation/Reports Matrix - Integrated Landscape View Report</i> .
5.1.3.8	The Contractor shall perform an analysis for each release of Business Readiness/Change Management impacts and shall complete all mitigation activities indicated by the analysis in coordination with NEACC Management.
5.1.4	<i>Quality Assurance Requirements</i> <i>The Quality Assurance program defines policies and procedures to include all aspects of Test Management, Requirements Management, and Development Standards.</i>
5.1.4.1	The Contractor shall prepare, implement and maintain a Quality Assurance plan that promotes the highest level of performance, reliability, and usability for all NEACC platforms and applications in accordance with DRD 1293QE-001 - <i>Software Engineering Quality Plan</i> .

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No.	GOVERNMENT Requirements
	<i>Factory Management Requirements</i>
5.1.4.2	The Contractor shall work with GOVERNMENT Business Process Support and Enterprise Application Strategy and Planning personnel to define the business and technical requirements associated with all Applications Operations and Implementation work. The Contractor shall document functional specifications of all business and technical requirements for all Applications Operations and Implementation work in accordance with DRD 1293QE-001 - <i>Software Engineering Quality Plan</i> .
5.1.4.3	The Contractor shall execute and document the results of tests for all Applications Operations and Implementation work in accordance with DRD 1293QE-001 - <i>Software Engineering Quality Plan</i> .
5.1.4.4	The Contractor shall provide application access for the GOVERNMENT to perform acceptance testing, prior to Release deployment.
5.1.4.5	The Contractor shall locate, verify, and maintain all existing test scripts and procedures used to execute System Integration and Regression testing.
5.1.4.6	The Contractor shall develop and maintain comprehensive test scripts.
5.1.4.7	The Contractor shall store automated and manual test scripts in an industry-standard Test Management tool, and shall execute all tests within the Test Management tool. The Contractor shall support recurring external and internal audits that relate to Requirements Management and Test Management. The Contractor shall utilize the current NEACC Test Management tool or a Contractor provided alternative.
5.1.4.8	The Contractor shall continually maintain and update the existing library of manual and automated regression tests that address the core features and functions of all production applications.
5.1.4.9	The Contractor shall utilize a system that clearly documents the linkage between an application requirement and the test script(s) that verify or verifies the correct implementation of this requirement. The Contractor shall support recurring audits that seek to verify these linkages.
5.1.4.10	The Contractor shall maintain the current NEACC business process modeling capability or a comparable capability using a Contractor provided tool set.
5.1.4.11	The Contractor shall utilize the Test Management tool to document all defects that are discovered during all test phases. The Contractor shall retain all defect documentation for audit purposes in accordance with DRD 1293QE-001 - <i>Software Engineering Quality Plan</i> .
5.1.4.12	The Contractor shall collect metrics in the Test Management tool on the root causes of defects found during testing.
5.1.4.13	The Contractor shall grant GOVERNMENT access to the Test Management

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No.	GOVERNMENT Requirements
	<i>Factory Management Requirements</i>
	tool for the purpose of viewing and validating test scripts and test results, to perform acceptance and other test procedures, or to perform any other functions requested by GOVERNMENT.
5.1.5	<i>Solution Design Requirements</i> <i>Solution Design consists of the processes and skills required to construct integrated solutions that satisfy business requirements within technical constraints.</i>
5.1.5.1	The Contractor shall provide a Solution Design capability that is demonstrated in tangible deliverables that support or facilitate iterative requirements definition over the life of the process.
5.1.5.2	The Contractor shall provide Solution and Application Architecture services that facilitate the overall design and integration of Enterprise Application component systems that are aligned with the GOVERNMENT's mission objectives and Enterprise Architecture.
5.1.6	<i>Configuration Management Requirements</i> <i>Configuration Management consists of a set of processes and tools for identifying, controlling, maintaining, and verifying the versions of all configurable platform, system, and application components.</i>
5.1.6.1	The Contractor shall prepare, implement, and maintain a Configuration Management Plan (CMP), in accordance with DRD 1294CF-003 – <i>Service Asset and Configuration Management (SACM) Plan</i> . The CMP shall include a set of policies and/or tools for the creation and ongoing maintenance of a consolidated NEACC Configuration Management Database (CMDB) to house information about configuration changes made to all NEACC platforms, systems, and applications.
5.1.6.2	The Contractor shall provide a quarterly report, as specified in DRD 1293MA-006 - <i>EAST Documentation/Reports Matrix - Configuration Management Database (CMDB) Report</i> , which provides an overview of the current state of the CMDB, including a view into the percentage of configurable items that are captured within the CMDB versus those that are not.
5.1.6.3	The Contractor shall establish, maintain, and operate a Document Management System that contains controlled versions of all NEACC operational documents.

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5.2 APPLICATION FUNCTIONAL SUPPORT

No.	GOVERNMENT Requirements
	<i>Application Functional Support Requirements</i>
5.2.1	The Contractor shall provide the functional support knowledge and subject matter expertise required to maintain and support the applications and platforms listed in Attachment J-21 , <i>Resource Baseline</i> and shall update this knowledge as new applications are developed or added to Attachment J-21 , <i>Resource Baseline</i> . Functional support knowledge and subject matter expertise shall include knowledge of application functional configuration, functional integration of applications across Lines of Business and the skills and abilities required to analyze and trouble shoot problems and inconsistencies within each application.
5.2.2	The Contractor shall, using the Incident Management process, identify, recommend and implement Application Maintenance and Enhancement tasks as required to continually achieve Expected Critical Service Levels, in accordance with Attachment J-4 , <i>Service Level Standards</i> .
5.2.3	The Contractor shall execute all test scenarios identified by Factory Management as necessary to support all planned releases.
5.2.4	The Contractor shall coordinate work across all Delivery Functions to ensure that each incident is resolved according to the Incident Management process.
5.2.5	The Contractor shall provide knowledgeable functional support resources to manage the interaction with third party vendors for acquisition, roadmap and problem resolution.

5.3 APPLICATION DEVELOPMENT

No.	GOVERNMENT Requirements
	<i>Application Development Requirements</i>
5.3.1	The Contractor shall provide all required skill sets and perform all application development activities required to meet Application Operations and Implementation requirements across all Lines of Business and applications as specified in PWS Sections 3.0 and 4.0.

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No.	GOVERNMENT Requirements
	<i>Application Development Requirements</i>
5.3.2	The Contractor shall utilize industry standard Software Engineering practices that ensure GOVERNMENT and stakeholder involvement throughout the process, and shall stay apprised of improvements in Software Engineering practices in accordance with DRD 1293QE-001 - <i>Software Engineering Quality Plan</i> .
5.3.3	The Contractor shall conform to existing GOVERNMENT Coding Standards and Naming Conventions.
5.3.4	The Contractor shall support all audit activity associated with verifying adherence to Coding Standards and shall promptly respond to and correct any audit findings associated with noncompliance.
5.3.5	The Contractor shall prepare, implement and maintain effective standards for documenting application development designs, individual code components, and associated verification tests in accordance with DRD 1293QE-001 - <i>Software Engineering Quality Plan</i> .

5.4 APPLICATION TECHNICAL OPERATIONS & MAINTENANCE (ATOM)

No.	GOVERNMENT Requirements
	<i>Application Technical Operations & Maintenance Requirements</i>
5.4.1	<p>The Contractor shall design, acquire, build and operate the application technology environment to support the application set for each Line of Business and all activities associated with PWS Section 3.0 and 4.0.</p> <p>“Design” shall include creating system and process designs and specifications based on business and technical requirements.</p> <p>“Acquire” shall include evaluating solution candidates and either procuring systems or establishing service relationships with external providers.</p> <p>“Build” shall include the establishment of a service capability through installation and configuration of application solutions and end-to-end integration of build services provisioned by external providers.</p> <p>“Operate” shall include monitoring and incident management to ensure availability of all internally-provisioned and externally-provisioned elements of application solutions as well as maintenance activities.</p> <p>This environment shall include the logical and physical software configuration, operational processes, database and other software services and buying or building infrastructure elements such as computing, storage</p>

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No.	GOVERNMENT Requirements
	<i>Application Technical Operations & Maintenance Requirements</i>
	and network infrastructure.
5.4.2	The Contractor shall apply critical software updates and patches to all NEACC managed software components for each application. Critical software updates include security updates, updates required to maintain vendor support and updates required for operational stability.
5.4.3	The Contractor shall provide all required skill sets and shall perform all activities in support of NEACC Application Technical Operations & Maintenance.
5.4.4	The Contractor shall utilize network, computing, storage, business continuity services and end-user services from NASA Integrated Communication Services (NICS), NASA Enterprise Data Center (NEDC) and Agency Consolidated End-user Services (ACES).
5.4.5	The Contractor shall develop and provide rough order of magnitude estimates for technology investments.
5.4.6	The Contractor shall develop and provide acquisition options and recommendations for technology investments.
5.4.7	The Contractor shall manage the transition of all new application and infrastructure components into an operational state.
5.4.8	The Contractor shall coordinate and manage all code transports into the Production Systems and throughout non-Production landscapes.
5.4.9	The Contractor shall monitor and manage the execution of interfaces throughout the entire NEACC landscape.
5.4.10	The Contractor shall monitor and manage the execution of all scheduled jobs throughout the entire NEACC landscape.
5.4.11	The Contractor shall maintain a record of all code migrations by application and by release, made throughout all system development landscapes.
5.4.12	The Contractor shall monitor messages for abnormal terminations, notify and record the problem to the respective GOVERNMENT application owners and provide logs to vendors to support problem resolution.
5.4.13	The Contractor shall perform console operations for applications including start, responding to message, monitoring the messages and stoppage.
5.4.14	The Contractor shall plan and execute comprehensive procedures in support of all planned and unplanned application outages including coordination of interface shut-down, interface start-up and coordination

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No.	GOVERNMENT Requirements
	<i>Application Technical Operations & Maintenance Requirements</i>
	of batch job scheduling.

5.5 INFORMATION ASSURANCE

Information Assurance comprises all activities related to ensuring the security of all NEACC platforms and applications, including User Account Management, assignment of application authorizations and roles, business resiliency and disaster recovery planning and operations, and management of the overall Security Lifecycle.

No.	GOVERNMENT Requirements
	<i>Information Assurance Requirements</i>
5.5.1	The Contractor shall provide Account Management functions for all EAST applications.
5.5.2	The Contractor shall provide authorization design, implementation and operations for all EAST applications.
5.5.3	The Contactor shall provide support for the reporting of Access Management metrics.
5.5.4	The Contractor shall provide a business resiliency capability that includes disaster recovery, contingency planning, business continuity, cyber incident response planning, and linkage with like plans throughout the host center, functional Lines of Business and Agency as described in DRD 1294CF-010 – <i>IT Service Continuity Management (ITSCM) Plan</i> .
5.5.5	The Contractor shall provide security planning in accordance with local, agency and federal guidance.
5.5.6	The Contractor shall provide a comprehensive governance, risk and compliance program to address evolving security guidance, proactive response to internal/external assessments, and routine security planning, as well as vulnerability assessments.
5.5.7	The Contractor shall support internal/external audits and assessments in accordance with routine and ad-hoc reviews.
5.5.8	The Contractor shall incorporate new projects/programs into the existing security program.

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No.	GOVERNMENT Requirements
	<i>Information Assurance Requirements</i>
5.5.9	The Contractor shall, as part of the Security Program, manage routine assessments of security to include privacy assessments, vulnerability assessments, social engineering assessments, segregation of duties assessments, security plan assessments, business resiliency tabletops, business resiliency exercises, and routine reviews of lifecycle improvements to ensure system confidentiality, integrity and availability.

5.6 I³P CROSS FUNCTIONAL INTEGRATION

As stated in Section 1.1 of this PWS, the EAST contract is part of the NASA Agency OCIO's multi-sourced I³P acquisition strategy, which spans across the wide-reaching service "towers" of Communications, Data Center, End-user, Enterprise Applications, and Web. It is imperative that all I³P contracts and Contractors follow a set of common processes with respect to those functions that must be integrated across towers to provide seamless service to the customer.

No.	GOVERNMENT Requirements
	<i>I³P Cross Functional Integration Requirements</i>
5.6.1	The Contractor shall adhere to all requirements in the I ³ P Cross-Functional PWS as referenced in Attachment <u>J-1</u> , Appendix <u>A</u> , <i>Cross Functional Requirements</i> .